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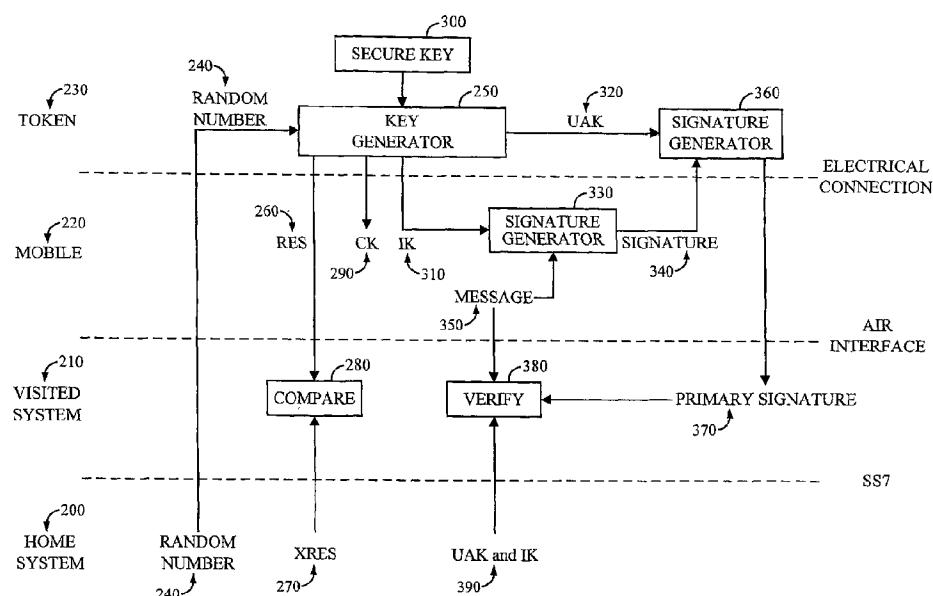
— with international search report

[Continued on next page]

(54) Title: LOCAL AUTHENTICATION IN A COMMUNICATION SYSTEM



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(57) Abstract: Methods and apparatus are presented for providing local authentication of subscribers travelling outside their home systems. A subscriber identification token (230) provides authentication support by generating a signature (370) based upon a key that is held secret from a mobile unit (220). A mobile unit (220) that is programmed to wrongfully retain keys from a subscriber identification token (230) after a subscriber has removed his or her token is prevented from subsequently accessing the subscriber's account.



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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/50643

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC 7 H04Q7/38 H04L9/32 H04L29/06

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04Q H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	"Rouges MS_Shell Treat Analysis" 3GPP TSG SA WG3 SECURITY, 'Online! 28 - 30 November 2000, pages 1-17, XP002210348 Sophia Antipolis, France Retrieved from the Internet: <URL: http://www.3gpp.org/ftp/tsg_sa/WG3_Security/2000_meetings/TSG3_16_Sophia_Antipolis/Docs/PDF/S3-000711.pdf> 'retrieved on 2002-08-20! paragraph '02.2!  paragraph '2.4.4! paragraph '05.2! ---- ----- -/-	6-9
A		1-5, 10-20

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Patent family members are listed in annex.

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## INTERNATIONAL SEARCH REPORT

International Application No

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>ALBERT LEVI, M. UFUK CAGLAYAN: "A Multiple Signature Based Certificate Verification Scheme"          BOGAZICI UNIVERSITY, 'Online!          XP002210349          Istanbul          Retrieved from the Internet:          &lt;URL: http://citeseer.nj.nec.com/cache/pape          rs/cs/2506/http:zSzzSzmercan.cmpe.boun.edu          .trzSz{levizSzbas98.pdf/a-multiple-signatu          re-based.pdf&gt; 'retrieved on 2002-08-20!          abstract          paragraph '0001!</p> <p>---</p>	1,10,16, 211
A	<p>"Incorporating UIM into 3G and IMT-2000 Systems"          TIA/EIA/IS-808, 'Online!          - November 2000 (2000-11) XP002210350          Retrieved from the Internet:          &lt;URL: http://www.tiaonline.org/standards/sf          g/imt2k/cdma2000/TIA-EIA-IS-808.pdf&gt;          'retrieved on 2002-08-20!          page 7 -page 25</p> <p>---</p>	1,10,16, 21
A	<p>MEHROTRA A ET AL: "MOBILITY AND SECURITY MANAGEMENT IN THE GSM SYSTEM AND SOME PROPOSED FUTURE IMPROVEMENTS"          PROCEEDINGS OF THE IEEE, IEEE. NEW YORK, US,          vol. 86, no. 7, July 1998 (1998-07), pages          1480-1497, XP000854168          ISSN: 0018-9219          the whole document</p> <p>-----</p>	1,10,16, 21